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Reconsideration of this application, as amended, is respectfully requested.

Initially, the Applicant would like to thank the Examiner for the indication that claim 15 contains allowable subject matter which would be allowed if rewritten in independent form including the limitations from its base claim (1) and any intervening claims (4 and 14).

In the Official Action, the Examiner objects to claims 1 and 3 because of the informalities recited in the first paragraph of the Official Action. In response, claim 1 has been amended as suggested by the Examiner and the objectionable term in claim 3 has been deleted. Accordingly, it is respectfully requested that the objections to claims 1 and 3 be withdrawn.

In the Official Action, the Examiner rejects claims 3 and 12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner rejects claims 3 and 12 because the terms "the surface" and "the top surface," respectively, appearing therein lack antecedent basis. In response, claims 3 and 12 have been amended to change the same to "a surface" and "a top surface," respectively. Accordingly, it is respectfully requested that the rejection of claims 3 and 12 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In the Official Action, the Examiner rejects claims 1-4, 10 and 12-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2006/0004256 to Gilad et al., (hereinafter "Gilad") in view of U.S. Patent Application Publication No. 2002/0185588 to Wagner et al., (hereinafter "Wagner"). Additionally, the

Examiner rejects claims 5-7 under 35 U.S.C. § 103(a) as being unpatentable over Gilad and Wagner and further in view of U.S. Patent Application Publication No. 2003/0205707 to Chi-Ming (hereinafter "Chi-Ming") and U.S. Patent Application Publication No. 2003/0234607 to Kim et al., (hereinafter "Kim"). Furthermore, the Examiner rejects claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Gilad and Wagner and further in view of U.S. Patent Application Publication No. 2003/0189742 to Kobayashi (hereinafter "Kobayashi"). Lastly, the Examiner rejects claims 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Gilad and Wagner and further in view of U.S. Patent Application Publication No. 2003/0130562 to Barbato et al., (hereinafter "Barbato").

The Examiner also rejects the claims based on another primary prior art reference. Specifically, the Examiner rejects claims 1-4, 7 and 9-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0167000 to Mullick et al., (hereinafter "Mullick") in view of Wagner. Additionally, the Examiner rejects claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Mullick and Wagner and further in view of Kim. Lastly, the Examiner rejects claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Mullick and Wagner and further in view of Kobayashi.

In response, independent claim 1 has been amended to clarify its distinguishing features. Claim 1 combines original claims 2 and 4, and further recites that the electroluminescence device is arranged around the observation optical unit so that the electroluminescence device is formed on one of the entire surface of a transparent substrate mounted on the illuminating substrate and directly on the entire surface of the illuminating substrate. The claims depending on claim 1 have also been amended, where necessary, to be consistent with amended claim 1. Claims 2, 4-8 and 13 have been canceled. The amendment

to claim 1 is fully supported in the original disclosure, such as at page 8, lines 5-8, 22 and 23 of the specification. Thus, no new matter has been introduced into the disclosure by way of the present amendment to claim 1.

Furthermore, claim 3 has been rewritten in independent form to limit a surface emitting light source to an electroluminescence device, and further recites that the electroluminescence device is arranged on an inner peripheral surface of an observing-side cover out of the observing field of view range of the observation optical unit. The amendment to claim 3 is fully supported in the original disclosure, such as at page 19, lines 13-19 of the specification. Thus, no new matter has been introduced into the disclosure by way of the present amendment to claim 3.

Still further, Claim 14 now recites a surface emitting light source as an electroluminescence device, and further recites that the electroluminescence device is formed on a variable focusing member as illuminating direction changing means arranged on the illuminating substrate. The amendment to claim 14 is fully supported in the original disclosure, such as at page 17, lines 3-7 of the specification. Thus, no new matter has been introduced into the disclosure by way of the present amendment to claim 14.

Before turning to the prior art, in the capsule endoscope recited in claim 1, an electroluminescence device (EL device) is employed as an illumination light source of a capsule endoscope. The EL device is arranged around an observation optical unit, so that the electroluminescence device is formed on the entire surface of a transparent substrate mounted on an illuminating substrate or directly on the entire surface of the illuminating substrate.

Also, in the capsule endoscope recited in claim 3, the EL device is arranged on an inner peripheral surface of an observing side cover that constitutes a capsule portion, out of an observing field-of-view range of the observation optical unit of the capsule endoscope. In this case, the EL device is formed like a band or partly on the inner circumferential surface of the observing side cover.

Turning now to Gilad, the same relates to a capsule, and describes that light emitting diodes (LEDs) or other suitable sources are used as the light sources, but does not disclose nor suggest that an electroluminescence device is used.

Wagner relates to a semitransparent optical detector, and discloses that a vertical cavity emitting laser (VCSEL) is used as the light source, but does not disclose nor suggest that an electroluminescence device is used.

Mullick relates to a capsule, and discloses that a full-color organic electroluminescent source is used as the light source. Here, the light source is constructed to be backed by a ring-semi-parabolic mirror (paragraph [0060] of Mullick provides, "Fig. 2 shows a light source 46 which is toroidally shaped and backed by a ring semi-parabolic mirror, concentric with the window 62 and lens 44.").

That is, the capsule endoscope of claim 1 uses the electroluminescence device as the light source, and the EL device 22 is arranged on the illuminating substrate 21 directly, or on the transparent substrate 20 mounted on the illuminating substrate 21. Therefore, the capsule endoscope of claim 1 does not use a ring-semi-parabolic mirror and is not backed by the ring-semi-parabolic mirror. Accordingly, the capsule endoscope of claim 1 patentably distinguishes over the cited references.

The capsule endoscope recited in claim 3 uses the electroluminescence device (EL device) as the light source of the capsule endoscope, and arranges the EL device on the inner peripheral surface of the observing-side cover 4 out of the observing field-of-view range of the observation optical unit 6.

In the constructions of Figs. 1A and 5A of Gilad, the light source is arranged on the circuit board 112 and the image sensor circuit board 109, respectively; and not on the inner peripheral surface of the observing-side cover as in the present invention.

In Mullick, the light source is arranged on the ring-semi-parabolic mirror, and not on the inner peripheral surface of the observing-side cover as in the present invention.

Accordingly, the capsule endoscope of claim 3 patentably distinguishes over the cited references.

With regard to the rejections of claims 1-14 under 35 U.S.C. § 103(a), Independent claims 1 and 3 are not rendered obvious by the cited references because neither the Gillard patent, the Mullick patent nor any of the remaining cited references, whether taken alone or in combination, teach or suggest a capsule endoscope having the features discussed above and recited in independent claims 1 and 3. Accordingly, claims 1 and 3 patentably distinguish over the prior art and are allowable. Claims 9-12 and 14 being dependent upon claim 1, are thus at least allowable therewith (claims 2, 4-8 and 13 being canceled). Consequently, the Examiner is respectfully requested to withdraw the rejections of claims 1-14 under 35 U.S.C. § 103(a).

Furthermore, the Applicant respectfully submits that dependent claims 9-12 and 14 patentably distinguish over the cited references independently of their base claim and are separately allowable.

With regard to claims 9-11, the cited references differ from the capsule endoscope recited in each of claims 9-11 and include no disclosure or suggestion of an arrangement and a way of arranging the electroluminescence device as the light source of the capsule endoscope. Barbato does not disclose nor suggest that the EL device is formed as an R-, G-, and B-matrix, is divided to be arranged on the illuminating substrate, and is divided into sources for R, G, and B to be arranged, and thus differs from that recited in each of claims 9-11.

With regard to claim 12, the prism 108 of Gilad refracts and changes the light path so as to forwardly direct the light illuminated in the side direction from the light source disposed at the back of and substantially perpendicularly to the imaging sensor, and is not an optical member for condensing or diffusing light. The dome shaped element 110 in Fig. 5 is a light source itself, and is not an optical member for condensing or diffusing light. The transparent window 62 of Mullick is for projecting light, and is not an optical member for condensing or diffusing light.

With regard to claim 14, the capsule endoscope thereof arranges the electroluminescence device (EL device) as the light source on the variable focusing member as illuminating direction changing means provided on the illuminating substrate, the variable focusing member having a top electrode which is deformed to change the illuminating-direction of the light source itself. This is quite different from the prism 108 or other refracting or reflecting element in Fig. 1A of Gilad.

Thus, claims 9-12 and 14 independently distinguish over the cited references and should be allowed.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



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